CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: Laurel Prevetti
PBCE

FROM: Timm Borden
Public Works

SUBJECT: **COMMENTS ON CVSP PRELIMINARY GEOTECHNICAL EVALUATION**

DATE: July 22, 2004

Public Works submits the following comments on the report titled, "Preliminary Geotechnical Evaluation, Coyote Valley Specific Plan Area, San Jose, California," by Engeo, Inc., September 17, 2003, Revised June 14, 2004:

We do not agree with the conclusion stated on p. 20 of the above report, that "*land planning within the Urban Reserve can proceed without further fault exploration or setback restrictions.*" The data presented in the report do not conclusively demonstrate that potential fault rupture hazards within the CVSP have been adequately evaluated and will be satisfactorily mitigated, particularly with respect to areas within the Shannon fault Surface Rupture Study Zone shown on Figure 3. A detailed, site-specific fault investigation has not been performed for the Urban Reserve to date. The study by Lowney Kaldveer Associates (1974), referenced on pages 12 through 15, provides conclusive evidence that a trace of the seismically active Shannon fault is present in close proximity to the site on the Campus Industrial property at Bailey Avenue. This fault trace, delineated by exploratory trenching, projects toward the Urban Reserve and even extends southeasterly *beyond* the City's Potential Fault Hazard Zone boundary (see Fig. 3). The fact that the fault trace extends *beyond* the Potential Hazard Zone boundary does not support the City's Potential Hazard Zone map, as concluded on p. 20, paragraph 2. On the contrary, the extension of the fault trace beyond the Potential Hazard Zone boundary strongly suggests that the Shannon fault trace does not terminate, but instead, continues through the CVSP site as shown on the Cooper Clark & Associates (1974) Fault Traces map.

The possibility of the fault trace continuing southwest from the Lowney Kaldveer site was acknowledged by subsequent geophysical studies by Terratech (1983) and Louke & Associates (1983). Lack of geophysical anomalies in these studies was cited as evidence that no fault exists in the Urban Reserve area. However, one of the magnetometer survey lines by Terratech (1983) reportedly revealed an anomaly coincident with the projected fault trace. Additionally, it is commonly acknowledged in engineering geologic practice that "geophysical methods alone never prove the absence of a fault..." (CGS Spec. Pub. 42, 1997, p.28). In other words, the lack of geophysical anomalies or geophysical evidence alone as cited in the report, does not prove the absence of faulting and can not be used as conclusive evidence that a fault trace is not present on the CVSP site.

Our review of references cited as further proof of lack of faulting on the CVSP site including McLaughlin (2001) and Wentworth (1999) found these maps to be too regional in nature to be used for site-specific evidence for lack of faulting. Moreover, the fault investigation by Lowney Kaldveer (1974) was not referenced in any of these map reports. It is doubtful that this fault data was evaluated when the maps were produced. Therefore, a key piece of local

evidence, which may have lead the author's to map the Shannon fault through the CVSP site had they reviewed this data, was not reflected on these maps.

In summary, based on the above discussion, we do not consider the data submitted to date to be conclusive enough to preclude active faulting on the CVSP site or remove the City's requirement for a detailed fault investigation, including subsurface exploration, to be performed on the property. It is our understanding that the County Geologist is currently requiring site-specific fault investigations to be performed on County projects within the subject fault hazard zone (Jim Baker, personal communication, 7/22/04). As discussed in our previous meeting with the project representatives, we recommend that the required fault study be performed as soon as possible to ensure that Geologic Hazard Clearance approval of the project may be accomplished in a timely manner.

If you have any questions, please call me at extension 3236 or Mike Shimamoto at extension 3770.

Timm Borden
Deputy Director of Public Works